

AMENDMENTS TO THE CLAIMS

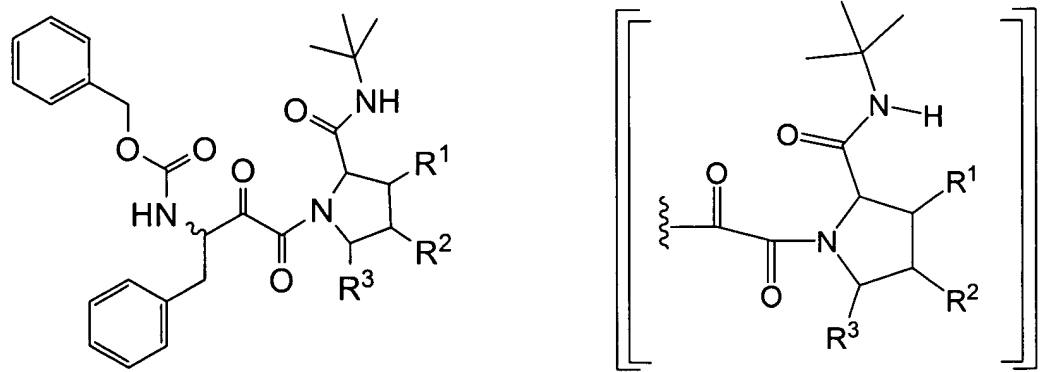
This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-18 (canceled) .

19. (currently amended) ~~[[An improved]] A mechanism based inhibitor of HIV or FIV aspartyl protease of a type having an N-terminus, a C-terminus, and a core structure for linking the N-terminus to the C-terminus, the N-terminus including an aromatic amino acid residue linked to said core structure, the C-terminus including a heterocyclic ring including a ring nitrogen linked to said core structure, the core structure being isosteric with a scissile amide bond of an HIV or FIV aspartyl protease substrate, wherein the improvement comprises:—~~

~~said core structure being an α -keto amide with~~ represented by the following structure:



wherein:

20 R¹ is a radical selected from the group consisting of -H, -OH, -O(C₁-C₆ alkyl), -OBn, -OCH₂C₆H₄(OH), and -OCH₂C₆H₃(OH)₂[[, and -OP]];

R² is a radical selected from the group consisting of -H, -OH, -O(C₁-C₆ alkyl), -OBn, -OCH₂C₆H₄(OH), and -OCH₂C₆H₃(OH)₂[[, and -OP]];

25 R³ is a radical selected from the group consisting of -H, -CH₂OH, and -CH₂O(C₁-C₆ alkyl)[[, and -CH₂OP]];

where ~~P is a hydroxyl protecting group;~~

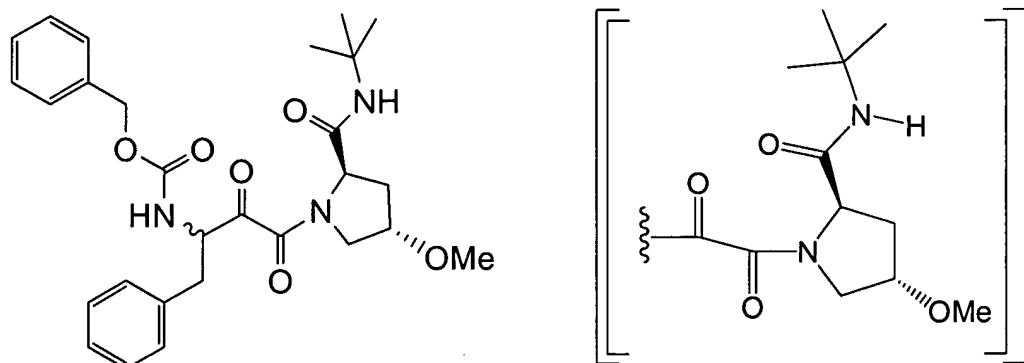
30 with the following provisos:

R¹, R² and R³ cannot all be hydrogen.

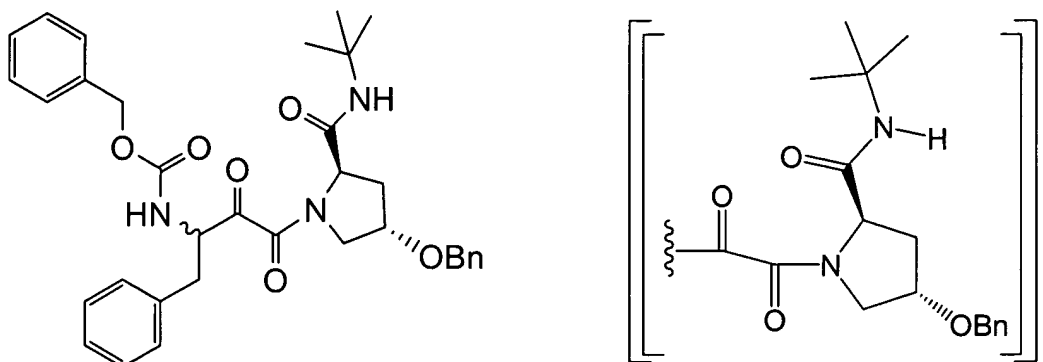
20. (currently amended) [[An improved]] A mechanism based inhibitor as described in claim 19 with the following structure:

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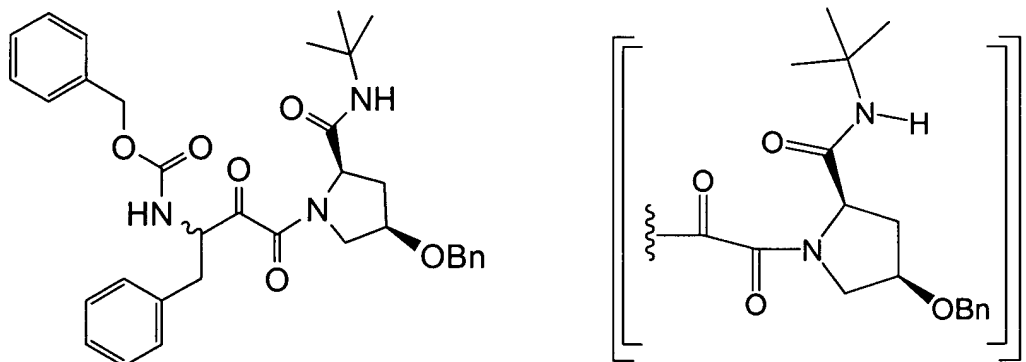
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21. (currently amended) ~~[[An improved]]~~ A mechanism based inhibitor as described in claim 19 with the following structure:



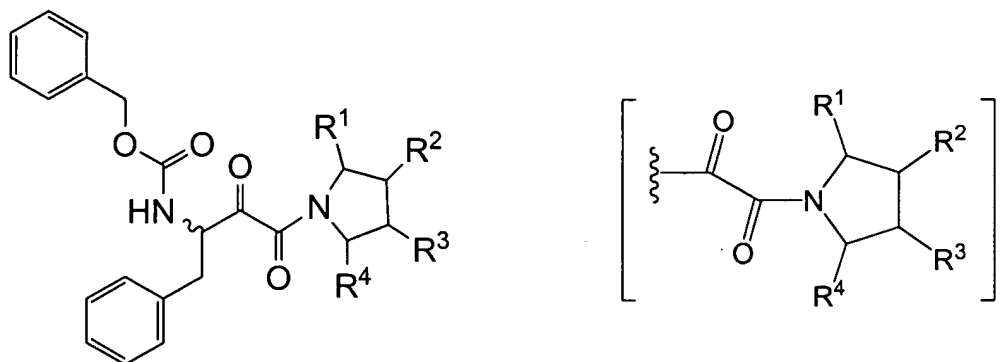
22. (currently amended) ~~[[An improved]]~~ A mechanism based inhibitor as described in claim 19 with the following structure:



23. (Withdrawn) ~~[[An improved]]~~ A mechanism based inhibitor of HIV or FIV aspartyl protease of a type having an N-terminus, a C-terminus, and a core structure for linking the N-terminus to the C-terminus, the N-terminus including an aromatic amino acid residue linked to said core structure, the C-terminus including a heterocyclic ring including a ring nitrogen linked to said core structure, the core structure being isosteric

with a scissile amide bond of an HIV or FIV aspartyl protease substrate, wherein the improvement comprises:

said core structure being an a-keto amide with represented by the following structure:



wherein:

R¹ is a radical selected from the group consisting of -H, -CH₂OH, -CH₂O(C₁-C₆ alkyl),
[[-CH₂OP,]] -C(O)NH-Ile-Gln-OBu-*t*, and -C(O)NH-Ile-Gln-Thr-NH₂;

R² is a radical selected from the group consisting of -H, -OH, -O(C₁-C₆ alkyl), -OBn,
-OCH₂C₆H₄(OH), and -OCH₂C₆H₃(OH)₂[[, and -OP]];

R³ is a radical selected from the group consisting of -H, -OH, -O(C₁-C₆ alkyl), -OBn,
-OCH₂C₆H₄(OH), and -OCH₂C₆H₃(OH)₂[[, and -OP]];

R⁴ is a radical selected from the group consisting of -H, -CH₂OH, and -CH₂O(C₁-C₆
alkyl)[[, and -CH₂OP]];

where P is a hydroxyl protecting group;

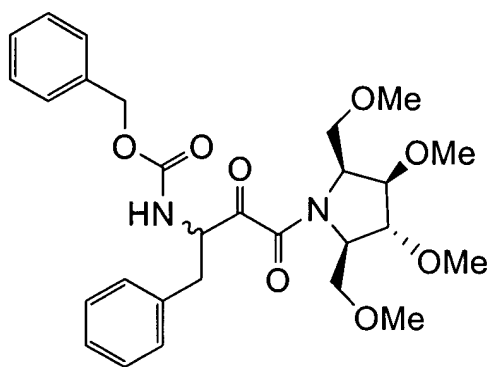
with the following proviso:

R¹, R², R³ and R⁴ cannot all be hydrogen.

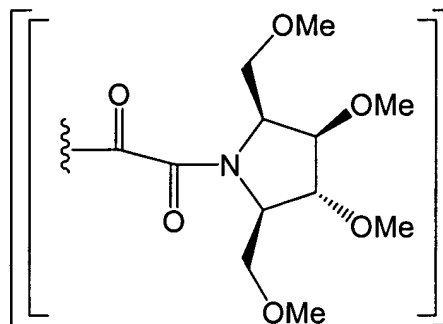
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24. (withdrawn) [[An improved]] A mechanism based inhibitor as described in claim 23 with the following structure:

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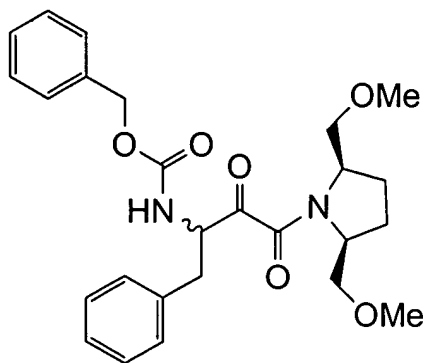


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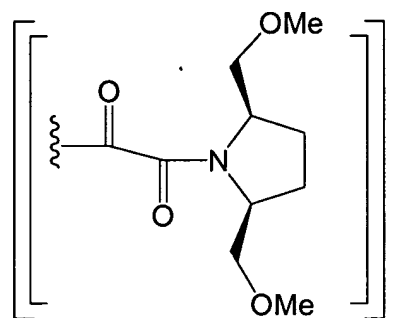


25. (withdrawn) [[An improved]] A mechanism based inhibitor as described in claim 23 with the following structure:

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26. (withdrawn) [[An improved]] A mechanism based inhibitor as described in claim 23 with the following structure:

